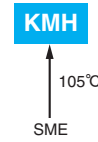




# LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS Standard screw terminals, 105°C

## KMH Series

- Endurance with ripple current : 2,000 hours at 105°C
- RoHS Compliant

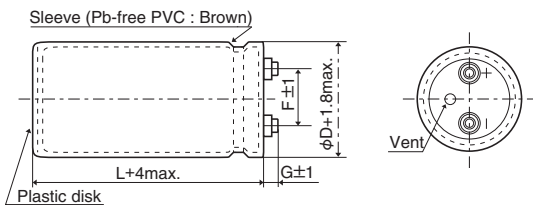


### ◆SPECIFICATIONS

Items	Characteristics						
<b>Category</b> <b>Temperature Range</b>	-40 to +105°C (10 to 100V <sub>dc</sub> )    -25 to +105°C (160 to 400V <sub>dc</sub> )						
<b>Rated Voltage Range</b>	10 to 400V <sub>dc</sub>						
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)						
<b>Leakage Current</b>	I=0.02CV or 5mA, whichever is smaller. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)						
<b>Dissipation Factor (tanδ)</b>	Shall not exceed the values shown in the STANDARD RATINGS (at 20°C, 120Hz)						
<b>Low Temperature Characteristics</b>	Capacitance change 10 to 100V <sub>dc</sub> : C(-40°C)/C(+20°C)≥0.6 160 to 400V <sub>dc</sub> : C(-25°C)/C(+20°C)≥0.7 (at 120Hz)						
<b>Insulation Resistance</b>	When measured between the terminals that are connected to each other and to the mounting clamp on the insulating sleeve covering the case by using an insulation resistance meter of 500V <sub>dc</sub> , the insulation resistance shall not be less than 100MΩ.						
<b>Insulation Withstanding Voltage</b>	When a voltage of 2,000Vac is applied for 1 minute between the terminals that are connected to each other and to the mounting clamp on the insulating sleeve covering the case, there shall not be electrical damage.						
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 105°C. <table border="1"> <tr> <td>Capacitance change</td> <td>≤±20% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</td> <td>≤200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> </tr> </table>	Capacitance change	≤±20% of the initial value	D.F. (tanδ)	≤200% of the initial specified value	Leakage current	≤The initial specified value
Capacitance change	≤±20% of the initial value						
D.F. (tanδ)	≤200% of the initial specified value						
Leakage current	≤The initial specified value						
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. <table border="1"> <tr> <td>Capacitance change</td> <td>≤±20% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</td> <td>≤200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> </tr> </table>	Capacitance change	≤±20% of the initial value	D.F. (tanδ)	≤200% of the initial specified value	Leakage current	≤The initial specified value
Capacitance change	≤±20% of the initial value						
D.F. (tanδ)	≤200% of the initial specified value						
Leakage current	≤The initial specified value						

### ◆DIMENSIONS (Screw-Mount) [mm]

- Terminal Code : LG



φ35 to φ63.5 : G=6  
φ76.2 & φ89 : G=5

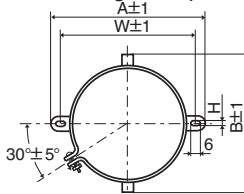
<Screw specifications>

Plus hexagon-headed screw : M5×0.8×10

Maximum screw tightening torque : 3.23Nm

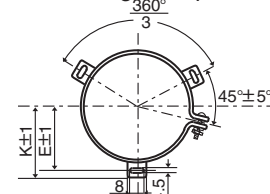
\* The screw and the mounting clamp are separately supplied and not attached to the product.

- Mounting Clamp Code : B



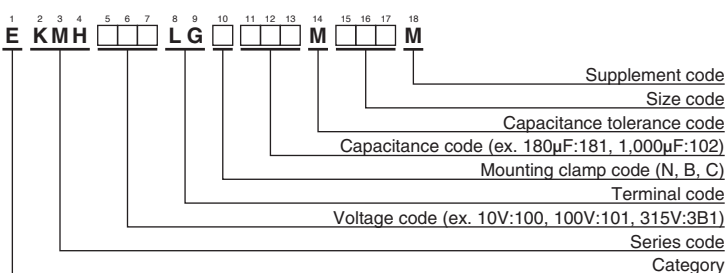
φD	A	B	W	H	F
35	58.0	44.0	48.0	3.5	12.7
50	78.0	64.0	68.0	4.5	22.4
63.5	90.0	76.0	80.0	4.5	28.0
76.2	104.5	90.0	93.5	4.5	31.5

- Mounting Clamp Code : C



φD	E	K	J	F
50	32.5	37.0	14.0	22.4
63.5	38.1	43.5	14.0	28.0
76.2	44.5	50.0	14.0	31.5
89	50.8	56.5	16.0	31.5

### ◆PART NUMBERING SYSTEM



Please refer to "Product code guide (screw-mount terminal type)"



◆ **STANDARD RATINGS**

VV (Vdc)	Cap (µF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	VV (Vdc)	Cap (µF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)	Part No.
80	47,000	76.2×120	0.30	16.5	EKMH800LGC473MEC0M	250	330	35×50	0.15	0.90	EKMH251LGB331MA50M
	56,000	76.2×120	0.30	18.1	EKMH800LGC563MEC0M		390	35×50	0.15	1.00	EKMH251LGB391MA50M
	68,000	76.2×140	0.35	19.7	EKMH800LGC683MEE0M		470	35×50	0.15	1.10	EKMH251LGB471MA50M
	82,000	89×140	0.40	22.1	EKMH800LGC823MFE0M		560	35×50	0.15	1.20	EKMH251LGB561MA50M
100	1,800	35×50	0.10	2.70	EKMH101LGB182MA50M		680	35×60	0.15	1.40	EKMH251LGB681MA60M
	2,200	35×50	0.10	3.00	EKMH101LGB222MA50M		820	35×80	0.15	1.60	EKMH251LGB821MA80M
	2,700	35×60	0.10	3.50	EKMH101LGB272MA60M		1,000	35×80	0.20	1.60	EKMH251LGB102MA80M
	3,300	35×80	0.10	4.20	EKMH101LGB332MA80M		1,200	35×80	0.20	1.80	EKMH251LGB122MA80M
	3,900	35×80	0.12	4.20	EKMH101LGB392MA80M		1,500	35×100	0.20	2.10	EKMH251LGB152MAA0M
	4,700	35×100	0.12	5.00	EKMH101LGB472MAA0M		1,800	35×120	0.20	2.50	EKMH251LGB182MAC0M
	5,600	35×100	0.12	5.40	EKMH101LGB562MAA0M		2,200	50×80	0.20	2.90	EKMH251LGC222MC80M
	6,800	35×120	0.15	5.80	EKMH101LGB682MAC0M		2,700	50×100	0.20	3.50	EKMH251LGC272MCA0M
	8,200	50×80	0.15	6.40	EKMH101LGC822MC80M		3,300	50×120	0.20	4.20	EKMH251LGC332MCC0M
	10,000	50×100	0.15	7.80	EKMH101LGC103MCA0M		3,900	50×120	0.20	4.60	EKMH251LGC392MCC0M
	12,000	50×120	0.15	9.30	EKMH101LGC123MCC0M		4,700	63.5×120	0.20	5.70	EKMH251LGC472MDC0M
	15,000	50×120	0.15	10.4	EKMH101LGC153MCC0M		5,600	63.5×120	0.20	6.30	EKMH251LGC562MDC0M
	18,000	63.5×100	0.20	10.4	EKMH101LGC183MDA0M		6,800	76.2×120	0.20	7.70	EKMH251LGC682MEC0M
	22,000	63.5×120	0.20	12.5	EKMH101LGC223MDC0M		8,200	76.2×120	0.20	8.40	EKMH251LGC822MEC0M
	27,000	76.2×120	0.25	13.7	EKMH101LGC273MEC0M		10,000	76.2×140	0.20	10.0	EKMH251LGC103MEE0M
	33,000	76.2×120	0.25	15.2	EKMH101LGC333MEC0M		12,000	89×140	0.20	11.9	EKMH251LGC123MFE0M
39,000	76.2×140	0.30	16.1	EKMH101LGC393MEE0M	315	180	35×50	0.10	0.80	EKMH31LGB181MA50M	
47,000	89×140	0.30	19.3	EKMH101LGC473MFE0M		220	35×50	0.10	0.90	EKMH31LGB221MA50M	
56,000	89×140	0.30	21.1	EKMH101LGC563MFE0M		270	35×50	0.10	1.00	EKMH31LGB271MA50M	
160	560	35×50	0.15	1.20		EKMH161LGB561MA50M	330	35×50	0.10	1.10	EKMH31LGB331MA50M
	680	35×50	0.15	1.30		EKMH161LGB681MA50M	390	35×50	0.10	1.20	EKMH31LGB391MA50M
	820	35×50	0.15	1.40		EKMH161LGB821MA50M	470	35×60	0.10	1.40	EKMH31LGB471MA60M
	1,000	35×50	0.15	1.60		EKMH161LGB102MA50M	560	35×60	0.10	1.50	EKMH31LGB561MA60M
	1,200	35×60	0.15	1.90		EKMH161LGB122MA60M	680	35×80	0.10	1.70	EKMH31LGB681MA80M
	1,500	35×60	0.15	2.10		EKMH161LGB152MA60M	820	35×80	0.15	1.70	EKMH31LGB821MA80M
	1,800	35×80	0.15	2.50		EKMH161LGB182MA80M	1,000	35×100	0.15	2.00	EKMH31LGB102MAA0M
	2,200	35×80	0.15	2.80		EKMH161LGB222MA80M	1,200	35×120	0.15	2.40	EKMH31LGB122MAC0M
	2,700	35×100	0.15	3.30		EKMH161LGB272MAA0M	1,500	50×80	0.15	2.70	EKMH31LGC152MC80M
	3,300	35×120	0.15	3.80		EKMH161LGB332MAC0M	1,800	50×100	0.15	3.30	EKMH31LGC182MCA0M
	3,900	50×80	0.20	3.80		EKMH161LGC392MC80M	2,200	50×120	0.15	4.00	EKMH31LGC222MCC0M
	4,700	50×100	0.20	4.60		EKMH161LGC472MCA0M	2,700	50×120	0.15	4.40	EKMH31LGC272MCC0M
	5,600	50×100	0.20	5.10		EKMH161LGC562MCA0M	3,300	63.5×100	0.15	5.10	EKMH31LGC332MDA0M
	6,800	50×120	0.20	6.10		EKMH161LGC682MCC0M	3,900	63.5×120	0.15	6.00	EKMH31LGC392MDC0M
	8,200	63.5×100	0.20	7.00		EKMH161LGC822MDA0M	4,700	76.2×100	0.15	6.80	EKMH31LGC472MCA0M
	10,000	63.5×120	0.20	8.40		EKMH161LGC103MDC0M	5,600	76.2×120	0.15	8.00	EKMH31LGC562MEC0M
12,000	76.2×100	0.20	9.40	EKMH161LGC123MEA0M		6,800	76.2×130	0.15	9.20	EKMH31LGC682MED0M	
15,000	76.2×120	0.20	11.4	EKMH161LGC153MEC0M	8,200	89×140	0.15	11.4	EKMH31LGC822MFE0M		
18,000	76.2×140	0.20	13.4	EKMH161LGC183MEE0M	10,000	89×140	0.15	12.6	EKMH31LGC103MFE0M		
22,000	89×140	0.25	14.5	EKMH161LGC223MFE0M	350	180	35×50	0.10	0.80	EKMH351LGB181MA50M	
27,000	89×140	0.25	16.0	EKMH161LGC273MFE0M		220	35×50	0.10	0.90	EKMH351LGB221MA50M	
200	330	35×50	0.15	0.90		EKMH201LGB331MA50M	270	35×50	0.10	1.00	EKMH351LGB271MA50M
	390	35×50	0.15	1.00		EKMH201LGB391MA50M	330	35×50	0.10	1.10	EKMH351LGB331MA50M
	470	35×50	0.15	1.10		EKMH201LGB471MA50M	390	35×60	0.10	1.30	EKMH351LGB391MA60M
	560	35×50	0.15	1.20		EKMH201LGB561MA50M	470	35×60	0.10	1.40	EKMH351LGB471MA60M
	680	35×50	0.15	1.30		EKMH201LGB681MA50M	560	35×80	0.10	1.60	EKMH351LGB561MA80M
	820	35×50	0.15	1.40		EKMH201LGB821MA50M	680	35×80	0.15	1.60	EKMH351LGB681MA80M
	1,000	35×60	0.15	1.70		EKMH201LGB102MA60M	820	35×100	0.15	1.80	EKMH351LGB821MAA0M
	1,200	35×60	0.15	1.90		EKMH201LGB122MA60M	1,000	35×120	0.15	2.20	EKMH351LGB102MAC0M
	1,500	35×80	0.15	2.30		EKMH201LGB152MA80M	1,200	50×80	0.15	2.40	EKMH351LGC122MC80M
	1,800	35×80	0.15	2.50		EKMH201LGB182MA80M	1,500	50×100	0.15	3.00	EKMH351LGC152MCA0M
	2,200	35×100	0.15	3.00		EKMH201LGB222MAA0M	1,800	50×120	0.15	3.60	EKMH351LGC182MCC0M
	2,700	35×120	0.15	3.60		EKMH201LGB272MAC0M	2,200	50×120	0.15	4.00	EKMH351LGC222MCC0M
	3,300	50×80	0.15	4.10		EKMH201LGC332MC80M	2,700	63.5×100	0.15	4.60	EKMH351LGC272MDA0M
	3,900	50×100	0.15	4.90		EKMH201LGC392MCA0M	3,900	76.2×120	0.15	6.70	EKMH351LGC392MEC0M
	4,700	63.5×100	0.20	5.30		EKMH201LGC472MDA0M	5,600	76.2×130	0.15	8.30	EKMH351LGC562MED0M
	5,600	63.5×100	0.20	5.80		EKMH201LGC562MDA0M	6,800	76.2×140	0.15	9.50	EKMH351LGC682MEE0M
6,800	63.5×120	0.20	6.90	EKMH201LGC682MDC0M		8,200	89×140	0.15	11.4	EKMH351LGC822MFE0M	
8,200	63.5×120	0.20	7.60	EKMH201LGC822MDC0M		400	180	35×50	0.10	0.80	EKMH401LGB181MA50M
10,000	76.2×120	0.20	9.30	EKMH201LGC103MEC0M	220		35×50	0.10	0.90	EKMH401LGB221MA50M	
12,000	76.2×120	0.20	10.2	EKMH201LGC123MEC0M	270		35×50	0.10	1.00	EKMH401LGB271MA50M	
15,000	76.2×140	0.20	12.2	EKMH201LGC153MEE0M	330		35×60	0.10	1.20	EKMH401LGB331MA60M	
18,000	89×140	0.25	13.1	EKMH201LGC183MFE0M	390		35×60	0.10	1.30	EKMH401LGB391MA60M	
250	270	35×50	0.15	0.80	EKMH251LGB271MA50M		470	35×80	0.10	1.40	EKMH401LGB471MA80M



**KMH Series**

◆ **STANDARD RATINGS**

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.
400	560	35×80	0.15	1.40	EKMH401LGB561MA80M	400	2,200	63.5×100	0.15	4.20	EKMH401LGC222MDA0M
	680	35×100	0.15	1.70	EKMH401LGB681MAA0M		3,300	63.5×120	0.15	5.50	EKMH401LGC332MDC0M
	820	35×120	0.15	2.00	EKMH401LGB821MAC0M		4,700	76.2×130	0.15	7.60	EKMH401LGC472MED0M
	1,000	50×80	0.15	2.20	EKMH401LGC102MC80M		5,600	89×140	0.15	9.40	EKMH401LGC562MFE0M
	1,200	50×100	0.15	2.70	EKMH401LGC122MCA0M		6,800	89×140	0.15	10.4	EKMH401LGC682MFE0M
	1,500	50×120	0.15	3.30	EKMH401LGC152MCC0M						

◆ **RATED RIPPLE CURRENT MULTIPLIERS**

● Frequency Multipliers

Rated voltage (Vdc)	Case diameter (mm)	Frequency (Hz)					
		50	120	300	1k	10k	50k
10 to 50	φ35 to φ89	0.95	1.00	1.03	1.05	1.09	1.12
	φ35	0.90	1.00	1.06	1.10	1.18	1.22
63 & 80	φ50 to φ89	0.95	1.00	1.03	1.05	1.09	1.12
	φ35	0.82	1.00	1.12	1.22	1.30	1.33
100	φ50	0.90	1.00	1.06	1.10	1.18	1.22
	φ63.5 to φ89	0.95	1.00	1.03	1.05	1.09	1.12
160 to 250	φ35	0.80	1.00	1.19	1.34	1.46	1.52
	φ50 & φ63.5	0.81	1.00	1.14	1.26	1.36	1.41
	φ76.2 & φ89	0.82	1.00	1.12	1.22	1.30	1.33
315 to 400	φ35 to φ89	0.80	1.00	1.19	1.34	1.46	1.52

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.